STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0068501; AI 43915; PER20070001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** West Baton Rouge Parish
Westport Wastewater Treatment Facility
P. O. Box 53
Port Allen, LA 70767

II. **PREPARED BY:** Angela Marse

DATE PREPARED: October 7, 2008

III. **PERMIT ACTION:** major modification to LPDES permit LA0068501

LPDES application received: October 24, 2007
LPDES permit effective: September 1, 2007
LPDES permit expires: August 31, 2012

IV. **FACILITY INFORMATION:**

A. The application is for a major modification of LPDES Permit LA0068501 to change the effluent limitations and increase the design capacity of the facility.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located at 1100 Lobdell Highway South in Port Allen, West Baton Rouge Parish.

D. The treatment facility consists of extended aeration. Disinfection is by chlorination.

E. Outfall 001

Discharge Location: Latitude 30° 26' 23" North
Longitude 91° 14' 41" West

Description: treated sanitary wastewater

Design Capacity: 0.4 MGD

Type of Flow Measurement which the facility is currently using:
Continuous Recorder

V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into the Intracoastal Waterway in segment 120109 of the Terrebonne Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 120109 of the Terrebonne Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment 120109	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Not Supported	N/A	Insufficient Data	N/A	N/A

[1/]The designated uses and degree of support for Segment 120109 of the Terrebonne Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act as amended by the Water Quality Act of 1987, and EPA's regulations at 40 CFR 130 require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ has developed Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. A TMDL establishes the amount of a pollutant that a waterbody can assimilate while still meeting the water quality standard for that pollutant. Since the issuance of the permit, TMDLs for segment 120109 have been completed. Applicable TMDLs are summarized below.

TMDLs for Dissolved Oxygen and Nutrients in Selected Subsegments in the Upper Terrebonne Basin, Louisiana includes subsegment 120109. A water quality model (LA-QUAL) was set up to simulate dissolved oxygen, 25-day carbonaceous biochemical oxygen demand ($CBOD_5$), ammonia nitrogen, and nitrite+nitrate. The model was calibrated using data from fieldwork conducted in July 2006. The projection simulation was run at critical flows and temperatures to address seasonality. Reductions of existing point source and nonpoint source loads were required for the projection simulation to meet the dissolved oxygen standard of 5 mg/l. TMDLs for oxygen-demanding substances ($CBOD_5$, ammonia, and sediment oxygen demand (SOD)) were calculated using the projection simulation. The dissolved oxygen TMDLs are presented as oxygen demand from CBOD, ammonia nitrogen, and SOD. Two facilities require changes to their WLAs; Alma Plantation and Ashland Plantation. Reductions from other point sources were not required by the TMDL. The Westport Facility was modeled at the increased design capacity of 0.4 MGD. The WLA for BOD for the Facility remained at 10 mg/l. This is consistent with the proposed modification. The WLA for ammonia was 5 mg/l and the WLA for organic nitrogen was 2.5 mg/l. However, if LDEQ determines there is no reasonable potential for a discharger to exceed the ammonia or organic nitrogen WLAs, then a permit may omit these parameters and still comply with this TMDL. Furthermore, the total nitrogen and total phosphorus ratio and mean concentrations in the nutrient listed subsegments are within the ratio and concentration ranges for the non-impaired subsegments. Thus, no nutrient reductions were necessary for subsegment 120109. Because no reductions to nutrients were required, it is assumed that the point sources may continue to discharge at their current concentration level of nutrients and not make any deleterious effect on water quality. The

facility collected samples for ammonia nitrogen, organic nitrogen, and total kjeldahl nitrogen. All sample results were below the detection level. Therefore, BOD_5 will be limited at 10mg/l in the permit. Ammonia, organic nitrogen, and total kjeldahl nitrogen will not be limited in the permit. When oxygen-demanding substances are controlled and limited to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited.

TMDLs for Fecal Coliform Bacteria, Chlorides, Sulfates, Total Dissolved Solids (TDS), Sediment, Total Suspended Solids (TSS), and Turbidity for Selected Subsegments in the Terrebonne Basin, Louisiana. The TMDLs in the study were calculated using a load reduction approach. Using this approach, the percent reduction for each LDEQ monitoring station was calculated on the basis of observed levels of constituents. The numeric water quality criteria that applied to the impaired subsegments were used to calculate the total allowable loads. The minimum percent reduction was calculated so that the monitoring data would meet criteria at the station. The percent reduction was applied to the entire subsegment. On the basis of analysis of water quality criteria, most fecal coliform bacteria TMDLs were developed on a seasonal basis. The TMDLs for Subsegment 120109 require a 20% reduction in the summer and no reduction in the winter. For fecal coliform, LDEQ's policy is to set wastewater permit limits no higher than water quality criteria (i.e. criteria are met at end-of-pipe). As long as point source discharges of treated wastewater contain parameter levels at or below these permit limits, they should not be a cause of exceedances of the fecal coliform bacteria water quality criteria. Therefore, no changes in the permit limits are required.

The subsegment is impaired for sulfates. The impairment is attributed to drought related impacts. EPA will conduct a TMDL Study to address the impairment. Because the impairment is not attributed to sanitary treatment plants, no effluent limits for sulfates will be placed in the permit at this time. A reopener clause is included in the permit should a sulfate limit be required in the future.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 120109 of the Terrebonne Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 27, 2007 from Boggs (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge will be from an existing facility expansion. LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a letter dated May 19, 2008 to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. SHPO's response, dated May 30, 2008 stated that no known archaeological sites or historic properties will be affected by this project.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Final Effluent Limits:

OUTFALL 001

The permit is being modified for 2 reasons: 1) to change effluent limits based on completion of *TMDLs for Subsegment 120109 of the Terrebonne Basin* and appeal of the permit; and 2)the facility is increasing the design capacity.

Permit Appeal and Comments
LPDES Permit LA0068501 was reissued July 17, 2007. The permit was appealed on August 17, 2007 by the Gulf Restoration Network, LEAN, and Mr. O'Neil Couvillion. The permit was specifically appealed for its authorization of excessive discharges of nitrogen, ammonia, phosphorus, and fecal coliform into the Intracoastal Waterway, modifying the permit, and failing to adequately respond to comments.

The appellants contended the Department did not adequately protect impaired waterbodies when they did not establish effluent limits for nitrogen, ammonia, and phosphorus in the permit issued July 17, 2007. Furthermore, replacing BOD_5 with $CBOD_5$ was considered backsliding since ammonia nitrogen was not limited in the permit. (The permittee was required to report ammonia nitrogen.) Because there is an ammonia nitrogen component to BOD_5, it was no longer "limited" once $CBOD_5$ was placed in the permit. In addition, the appeal claims the State's limit for fecal coliform is insufficient because it allows the discharge of fecal coliform bacteria at the maximum level of the State's allowable water quality criteria.

Permit Modification

Based on the appeal of the permit issued in 2007 and completion of Total Daily Maximum Load (TMDL) report associated with the Upper Terrebonne Basin, the LDEQ determined the permit should be modified accordingly. By order of the 19th Judicial Court, the permit has been remanded for modification meaning the matter has been returned to LDEQ to reconsider the previous permit decision. In addition, the facility has submitted a request for a major modification to increase design capacity.

In a letter submitted October 25, 2007 with applicable application pages, West Baton Rouge Parish requested a permit modification to increase the plant's design capacity from 0.3 MGD to 0.4 MGD to provide sewerage to new developments.

When faced with the request to discharge from the new developments, the Parish considered the increase in design capacity the most environmentally conscientious solution. Although the parish was not required to conduct an IT analysis, several IT factors were considered in selecting a feasible

alternative to address the increase need for sewerage treatment in the Parish. For the following reasons, the upgrade to the existing plant will have minimal adverse environmental impacts due to the following reasons:

- The existing facility is a "large" facility closely regulated by LDEQ and required to perform monitoring on a monthly basis. Results of monitoring are submitted to LDEQ. If the developments are allowed to discharge via small individual package plants, much less control and monitoring would be the results.
- The current plant's discharge location is into an unnamed ditch, thence into the Intracoastal Canal. The Intracoastal Waterway is a large body of water with great assimilative capacity. Smaller, localized discharges will most likely not have this benefit.
- Economic benefits were not a deciding factor in the selection of the alternative. No economic benefit will be realized from the expansion of the Plant. The Parish will actually incur large costs from the expansion. Even with sewer fees to new customers, the expense will take a long time to pay off.
- The Parish also considered constructing a new facility (at the new MGD) at a different site, rather than expanding. However, the facility is located in an industrial area with land use that has been in place since 1973. Relocating the facility to a new area may have involved possibly altering existing land uses.
- The selected alternative has negligible environmental impact due to not changing the existing land use and taking advantage of the assimilative capacity of the Intracoastal Waterway.

Modified Permit Limits

Because the facility can meet the TMDL requirement for ammonia and organic nitrogen, no ammonia or organic nitrogen limits are in the permit. Subsequently, the $CBOD_5$ has been changed to BOD_5. Thus, the limits are the same as in the permit issued October 1, 1999.

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	33.34	10 mg/l	15 mg/l	TMDLs for Dissolved Oxygen and Nutrients in Selected Subsegments in the Upper Terrebonne Basin, Louisiana and the Statewide Sanitary Effluent Limitations Policy.
TSS	50	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0068501: Issued: September 1, 2007
Expired: August 31, 2012

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow	Report	Report	Continuous	Recorder
$CBOD_5$	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Ammonia-Nitrogen	Report mg/l	Report mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

The permit contains biomonitoring.
The permit contains pollution prevention language.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspection was performed for the facility:

Date: September 4, 2007
Inspector: William Puissegur
Findings and/or Violations:

1. The LPDES permit was effective September 1, 2007.
2. DMRs from June, 2006-July, 2007 were reviewed. Also reported were several monthly average TSS concentration and loading violations.

3. The treatment system consists of an above ground tank type activated sludge plant having an inner, circular clarifier and outer aeration section.
4. Facility grounds were maintained.
5. Influent flow was observed.
6. Uneven aeration was being provided. Two different diffusers were "burping" mixed liquor into the outer clarifier ring with the clarifier discharge. "Burped" water contained brown flock.
7. The sludge return and clarifier skimmers were operating. Skimmer operation was hampered by a heavy algae buildup around suction openings.
8. Clarifier surface was covered by duckweed. Green algae and plastic artifacts were also present.
9. Disinfection was by chlorine gas.
10. $CBOD_5$, TSS, and ammonia samples were collected from outfall 001. Samples were clear. Lab analysis provided non-detect values for $CBOD_5$ and ammonia; an 11mg/l was reported for TSS. These results were within the permit limits.
11. The effluent receiving stream at and downstream of the outfall discharge point contained a moderate brown buildup and white grease balls were noted.

The inspection was completed at MR. Daryl Babin's office on September 11, 2007.

1. Contract lab reports and chain of custody appeared to be in order. Gulf Coast Analytical, Inc. provides analyses of samples collected and transported by facility staff. Residual chlorine and pH are field analyzed by staff.
2. Facility uses a scientific USA Model 1Q120 portable pH meter for permit analyses. Meter did not appear to be temperature compensating and only requires a single point calibration with pH 7.0 standard unit buffer. Meter should be temperature compensating and have a two point calibration capability.
3. Permit has a continuous record flow requirement. Recorder includes totalizing meter. Facility uses a pump curve for flow determinations. A totalizer was not being used.
4. Facility has never wasted sludge.

B) Compliance and/or Administrative Orders

A review of the files indicates no recent enforcement actions administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning January, 2005 through March, 2008 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
TSS	001	January, 2007	15 mg/l	23 mg/l
TSS	001	March, 2007	15 mg/l	<21 mg/l
TSS	001	March, 2007	23 mg/l	40 mg/l
TSS	001	April, 2007	15 mg/l	17 mg/l
TSS	001	June, 2007	23 mg/l	24 mg/l
TSS	001	September, 2007	15 mg/l	36 mg/l
TSS	001	September, 2007	23 mg/l	40 mg/l
TSS	001	October, 2007	15 mg/l	33 mg/l
TSS	001	October, 2007	23 mg/l	63 mg/l
TSS	001	November, 2007	15 mg/l	48 mg/l
TSS	001	November, 2007	23 mg/l	93 mg/l

- The facility was issued a warning letter in February, 2008.
- The facility determined the air in the aeration tank was too high, making sludge blow over into the clarifier. (The aeration tank is shaped like a donut around the clarifier).

XII. ADDITIONAL INFORMATION:

In accordance with LAC 33:IX.2707.C, this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b) Controls any pollutant not limited in the permit; or

c) Requires reassessment due to change in 303(d) status of waterbody; or

d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Modified final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.4 MGD.

Effluent loadings are calculated using the following example:

BOD: 8.34 lb/gal x 0.4 MGD x 10 mg/l = 33.4 lb/day

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a major modification permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2008.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2008.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, West Baton Rouge Parish, Westport Wastewater Treatment Facility, October 24, 2007.

TMDLs for Dissolved Oxygen and Nutrients in Selected Subsegments in the Upper Terrebonne Basin, Louisiana.

TMDLs for Fecal Coliform Bacteria, Chlorides, Sulfates, Total Dissolved Solids (TDS), Sediment, Total Suspended Solids (TSS), and Turbidity for Selected Subsegments in the Terrebonne Basin, Louisiana.